

arm could not be moved, which made it difficult to determine whether this absence of motion was due to pain or paralysis. For about six weeks there was actual paralysis of the arm and shoulder. Subsequently, the isolated serratus paralysis became evident. Six months later he still had slight pain in the axilla, but no objective sensory disturbance. Neither galvanic nor faradic reaction could be obtained at the corresponding motor points over the clavicle or at the serrations of the muscle. The other muscles of the arm and shoulder, especially the trapezius, were strong, and gave normal electrical reactions. The upper portion of the trapezius, the region of the infraspinatus and the deltoid were flatter than upon the left side. The patient's arduous labor as a brassfounder was not interfered with. No cause could be discovered indicative of paralysis from neuritis. There were no evidences of lead poisoning. He thus explains the elevation of the arm to the vertical position: at first the deltoid acts in association with the supraspinatus, and probably the infraspinatus, in order to forcibly place the arm at a right angle with the external border of the scapula. For the further elevation, the well-known rotation of the scapula with its point outward must now take place, and this, in a deficiency in the serratus, is accomplished by the middle portion of the trapezius, which at the same time draws the scapula downward.

In this case the external rotation of the scapula could partly be executed by the posterior fibres of the deltoid, and partly by the teres major and minor and the infraspinatus.

It is of interest to note from a clinical standpoint that the most important symptom of serratus paralysis, the one that causes the essential functional disturbance, does not exist in every case. We do not know positively why this should occur in one case and not in another.—*Neurolog. Centrbl.* No. 2, 1893. W. M. L.

A Case of Hysteria, Associated with Morphine Habit, Cured by Extirpation of Ovaries.—(Dr. Eichholz, in *Frauenarzt*, Vol. VII., No. 11.) He justifies the operation, when, as in severe cases of hysteria, both physical and psychical impairment is considerable. The patient, aged forty-five, unmarried, had been, since sixteen years of age, under thirty or more physicians' care for a host of diseases. She had been treated at a water-cure establishment; had received electrical treatment; had been through a gymnastic training, and also had

been hypnotized. But still the intense cramps which had made life miserable continued; nothing but morphine would relieve her, and she became a morphine habitué. She was very much exhausted physically, and her nervous system was completely disorganized when she came to Eichholz for treatment. He discovered that her uterus was enlarged and introverted, while on the posterior side was a sub-peritoneal fibroid tumor, and the left ovary was enlarged and painful. Treatment by use of pessary was first given, then hypnosis, but without success. She grew worse, necessitating hospital care, and after a winter spent at Rostock, where only by the use of morphine and chloroform could a bearable condition be realized, the operation was at last agreed to. On examination the original fibroid was found much enlarged, while two smaller ones had also appeared. The three fibroids, together with both ovaries, and their tubes were removed. The right ovary was normal, but the left was much enlarged and in a state of chronic inflammation. It did not seem advisable to reduce the quantity of morphine until after the fifth day, when its gradual reduction began. The patient improved gradually, and excepting at the menstrual periods, when the tormenting pains would appear, she was in a condition to appreciate life. These distressing pains disappeared entirely at the end of a year. Her mental and physical condition improved steadily, and with this improvement the desire for morphine or other narcotics disappeared. It is worthy of note that the menses were unaffected by the use of morphine during all these years. Thus controverting Lutland, who says they are suppressed in morphine habitués. The transition to convalescence was gradual and permanent, showing the cure was by removing the cause. F. P. N.

ANATOMICAL.

On the Histology of the Spinal Cord of Man.—

Dr. G. Mingazzini, of the University of Rome, comes to the following conclusions regarding the histological elements of the spinal cord:

I. That the network of the anterior horns is composed almost entirely of terminal fibres which place the cerebro-spinal and spino-muscular systems in relation with each other.

II. That all the groups of cells of the anterior horns are motor.